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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,901

04/14/2006

Stephan Ahlborn

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7055 7590 04/11/2008  
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EXAMINER

CHIESA, RICHARD L

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

04/11/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,901	<b>Applicant(s)</b> AHLBORN, STEPHAN	
	<b>Examiner</b> Richard L. Chiesa	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on February 14, 2008 has been entered.

### ***Claim Rejections - 35 USC § 102/103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 5, 12, and 17 are again rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lustenader et al as applied in paragraph 7 on pages 3 and 4 of the first Office action (dated November 14, 2007).
4. Claims 6-11, 13-16, and 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lustenader et al in view of Gillingham et al as applied in paragraph 8 on page 4 of the first Office action (dated November 14, 2007).
5. Claims 5-25 are also rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 5-25 in paragraphs 3 and 4 above, and further in view of Krausse as applied in paragraph 9 on pages 4 and 5 of the first Office action (dated November 14, 2007).

***Response to Arguments***

6. Applicant's arguments filed on February 14, 2008 have been fully considered but they are not persuasive for the reasons explained below.

Applicant's assertion that Lustenader et al do not disclose separating oil particles from the gas stream of an internal combustion engine is actually irrelevant. Independent claims 5 and 12 are drawn to apparatus and the fluids or materials treated are not entitled to patentable weight since they do not comprise elements of the claimed apparatus. Independent process claim 17 does recite separating oil particles from a gas stream but does not mention an internal combustion engine. In any case, Lustenader et al (note col. 1, lines 14-60) do disclose separating a wide variety of both small and large particles. Therefore, it is inherent or at the very least would have been readily obvious to one of ordinary skill in the art that oil particles are typical pollutants which Lustenader et al separate from a gas stream. Furthermore, Krausse (note English language abstract) has also been relied upon to teach that separation of oil particles from an internal combustion engine gas stream is a well-known and routine application of an electrostatic separator.

Basically, applicant has argued with respect to the dependent claims that there is no rationale to combine the teachings of Gillingham et al with Lustenader et al. This argument is unconvincing because Gillingham et al have merely been relied upon to teach rearranging the Lustenader et al apparatus and process from a horizontal configuration to a vertical one. Certainly one of ordinary skill in the art or even one of ordinary resourcefulness would readily reposition an electrostatic precipitator so as to fit properly into the particular environment where it is being operated.

Applicant's comment that Krausse does not direct oil particles against the wall of the electrostatic precipitator is apparently erroneous. This is because Krausse clearly discloses oil particles 40 on the chamber wall 2 flowing down to collection and removal pipe 4.

***Allowable Subject Matter***

7. The following claims drafted by the examiner and considered to distinguish patentably over the art of record in this application, are presented to applicant for consideration:

(A) An electrostatic separator for separating particles containing oil out of a gas stream of an internal combustion engine crankcase, comprising:

a chamber having a gas stream inlet and being structured and arranged to redirect the gas stream entering the chamber;

an emission electrode comprising a needle element extending upwardly along a longitudinal axis of the electrostatic separator and arranged to form, relative to a gas stream direction, a front corona region and a rear deposition region;

a deposition electrode surrounding the emission electrode and the rear deposition region;

a collecting trough located at a lower end of the rear deposition region;

an outlet opening structured to receive the separated particles from the collecting trough and arranged adjacent the deposition electrode and at a level with or after, relative to the gas flow direction, the rear deposition region;

the chamber located above the emission electrode and having a downwardly converging wall transitioning into the deposition electrode;

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the gas stream inlet arranged at an upper end of the electrostatic separator, the outlet opening arranged at a lower end of the electrostatic separator, wherein the gas stream flows downwards from the chamber and between the emission electrode and the deposition electrode, and

wherein the electrostatic separator is structured and arranged to separate the particles containing oil from the gas stream of the internal combustion engine crankcase.

(B) An electrostatic separator for separating particles containing oil out of a gas stream of an internal combustion engine crankcase, comprising:

a gas stream inlet arranged at a lower end of the electrostatic separator;

a chamber having means for redirecting a gas stream entering the chamber;

an emission electrode comprising a needle element extending downwardly along a longitudinal axis of the electrostatic separator and arranged to form, relative to a gas stream direction, a front corona region and a rear deposition region;

a deposition electrode surrounding the emission electrode and the rear deposition region;

the chamber located above the emission electrode and having a downwardly converging wall at a lower end of the chamber transitioning into the deposition electrode;

a collecting trough located at the top end of the converging wall;

an outlet opening positioned adjacent the collecting trough and structured to receive the separated particles from the collecting trough and arranged at a level after, relative to the gas flow direction, the rear deposition region;

wherein the gas stream flows upwards between the emission electrode and the deposition electrode and into the chamber, and

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wherein the electrostatic separator is structured and arranged to separate the particles containing oil from the gas stream of the internal combustion engine crankcase.

8. Corresponding process claims which require all of the limitations recited in the claims suggested above in paragraphs 7(A) and 7(B) would also be allowable.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Chiesa whose telephone number is (571) 272-1154.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane S. Smith, can be reached at (571) 272-1166.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is (571) 272-1700.

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Facsimile correspondence must be transmitted through (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard L. Chiesa

April 4, 2008

**/Richard L. Chiesa/  
Primary Examiner  
Art Unit 1797**